

Claims:

Please amend the pending claims as follows:

1. (Currently amended) A blade support sub-assembly adapted to be used with a scraper blade for scraping and cleaning a conveyor belt and with a mounting sub-assembly, comprising:
 - a pair of notched receiving members, each notched receiving member having a notch formed from a front vertical stabilizer and a rear vertical stabilizer, said notch for receiving a scraper blade, and said pair of notched receiving members adapted for use with a mounting sub-assembly;
 - a face plate extending between said pair of notched receiving members and about parallel to the scraper blade such that at least a portion of the scraper blade rests flush against said face plate when the scraper blade is situated in said pair of notched receiving members; and
 - a means for vertically adjusting and rigidly fixing a height of the scraper blade in relation to a fixed position of said pair of notched receiving members and said face plate such that the scraper blade is in contact with a surface of the conveyor belt to be scraped.
2. (Currently amended) The blade support sub-assembly according to claim 1, wherein said means for vertically adjusting and rigidly fixing a height of the scraper blade ~~within said notches~~ in relation to a fixed position of said pair of notched receiving members comprises a horizontal blade stabilizer approximately perpendicular to and extending beneath said face plate, and one or more adjustable lock bolts extending upward through said horizontal blade stabilizer and in communication with a bottom surface of the scraper blade, wherein rotating one said adjustable lock bolt in a first direction raises said adjustable lock bolt and the scraper blade, and rotating one said adjustable lock bolt in a second direction lowers said adjustable lock bolt and the scraper blade.

1 3. (Original) The blade support sub-assembly according to claim 1, further comprising a
2 means for removably securing the scraper blade within said notches of said pair of
3 notched receiving members.

1 4. (Currently Amended) The blade support sub-assembly according to claim 3, wherein said
2 means for removably securing the scraper blade comprises one or more adjustable screws
3 and said face plate having one or more holes that align with one or more holes in a
4 scraper blade, wherein each of said adjustable screws is adapted to pass through one of
5 the holes in the scraper blade and through one of said holes in said face plate, thereby
6 securing the scraper blade to said face plate at a fixed position.

1 5. (Original) The blade support sub-assembly according to claim 1, further comprising a
2 shield attached to the scraper blade, wherein said shield extends from the scraper blade
3 and over the blade support sub-assembly.

1 6. (Original) The blade support sub-assembly according to claim 1, wherein said rear
2 vertical stabilizer is taller in height than said front vertical stabilizer.

1 7. (Original) The blade support sub-assembly according to claim 1, further comprising a
2 scraper blade having a blade insert fixed within a blade housing.

1 8. (Original) The blade support sub-assembly according to claim 1, further comprising a
2 means for spraying a liquid on the conveyor belt.

1 9. (Original) The blade support sub-assembly according to claim 8, wherein said means for
2 spraying a liquid comprises a pipeline, for transporting a liquid, having one or more
3 nozzles, a means for restricting a flow of the liquid through said pipeline, and a means for

1 securing said pipeline and said one or more nozzles in proximity to the blade support sub-
2 assembly.

- 1 10. (Currently amended) ~~The blade support sub-assembly according to claim 9, further~~
2 ~~comprising~~ A blade support sub-assembly adapted to be used with a scraper blade for
3 scrapping and cleaning a conveyor belt and with a mounting sub-assembly, comprising:
4 a pair of notched receiving members, each notched receiving member having a
5 notch formed from a front vertical stabilizer and a rear vertical stabilizer, said notch for
6 receiving a scraper blade, and said pair of notched receiving members adapted for use
7 with a mounting sub-assembly;
8 a face plate extending between said pair of notched receiving members and about
9 parallel to the scraper blade such that at least a portion of the scraper blade rests flush
10 against said face plate when the scraper blade is situated in said pair of notched receiving
11 members;
12 a means for vertically adjusting a height of the scraper blade in relation to a fixed
13 position of said pair of notched receiving members such that the scraper blade is in
14 contact with a surface of the conveyor belt to be scraped;
15 a means for spraying a liquid on the conveyor belt, wherein said means for
16 spraying a liquid comprises a pipeline, for transporting a liquid, having one or more
17 nozzles, a means for restricting a flow of the liquid through said pipeline, and a means for
18 securing said pipeline and said one or more nozzles in proximity to the blade support sub-
19 assembly; and
20 a shield, having one or more holes, attached to the scraper blade, wherein said
21 shield extends from the scraper blade and over the blade support sub-assembly, wherein
22 each of said one or more nozzles of said pipeline aligns with and extends through one of
23 said one or more holes in said shield.

- 1 11. (Currently amended) The blade support sub-assembly according to ~~claim 9~~ claim 10,
2 wherein said shield is attached to a front of the scraper blade such that the liquid is
3 sprayed ~~at a point on a conveyor belt ahead of the scraper blade~~ toward the conveyor belt.
- 1 12. (Currently amended) The blade support sub-assembly according to ~~claim 9~~ claim 10,
2 wherein said shield is attached to a rear of the scraper blade such that the liquid is sprayed
3 ~~at a point on a conveyor belt behind the scraper blade~~ toward the conveyor belt.
- 1 13. (Currently amended) ~~The blade support sub-assembly according to claim 8;~~ A blade
2 support sub-assembly adapted to be used with a scraper blade for scraping and cleaning a
3 conveyor belt and with a mounting sub-assembly, comprising:
4 a pair of notched receiving members, each notched receiving member having a
5 notch formed from a front vertical stabilizer and a rear vertical stabilizer, said notch for
6 receiving a scraper blade, and said pair of notched receiving members adapted for use
7 with a mounting sub-assembly;
8 a face plate extending between said pair of notched receiving members and about
9 parallel to the scraper blade such that at least a portion of the scraper blade rests flush
10 against said face plate when the scraper blade is situated in said pair of notched receiving
11 members;
12 a means for vertically adjusting a height of the scraper blade in relation to a fixed
13 position of said pair of notched receiving members such that the scraper blade is in
14 contact with a surface of the conveyor belt to be scraped; and
15 a means for spraying a liquid on the conveyor belt, wherein the liquid is selected
16 from the group consisting of water, a cleaning agent, a solvent, anti-freeze, and a dust
17 inhibitor.

1 22. (Currently Amended) The blade support sub-assembly according to ~~claim 21~~ claim 26,
2 wherein said means for spraying a liquid comprises a pipeline, for transporting a liquid,
3 having one or more nozzles, a means for restricting a flow of the liquid through said
4 pipeline, and a means for securing said pipeline and said one or more nozzles in
5 proximity to the blade support sub-assembly.

1 23. (Currently amended) ~~The blade support sub-assembly according to claim 21, further~~
2 comprising A blade support sub-assembly adapted to be used with a scraper blade for
3 scrapping and cleaning a conveyor belt and with a mounting sub-assembly, comprising:
4 a pair of notched receiving members, each notched receiving member having a
5 notch formed from a front vertical stabilizer and a rear vertical stabilizer, said notch for
6 receiving a scraper blade, and said pair of notched receiving members adapted for use
7 with a mounting sub-assembly;
8 a face plate extending between said pair of notched receiving members and about
9 parallel to the scraper blade such that at least a portion of the scraper blade rests flush
10 against said face plate when the scraper blade is situated in said pair of notched receiving
11 members;
12 a means for spraying a liquid on the conveyor belt, wherein said means for
13 spraying a liquid comprises a pipeline, for transporting a liquid, having one or more
14 nozzles, a means for restricting a flow of the liquid through said pipeline, and a means for
15 securing said pipeline and said one or more nozzles in proximity to the blade support sub-
16 assembly; and
17 a shield, having one or more holes, attached to the scraper blade, wherein said
18 shield extends from the scraper blade and over the blade support sub-assembly, wherein
19 each of said one or more nozzles of said pipeline aligns with and extends through one of
20 said one or more holes in said shield.

1 24. (Currently amended) The blade support sub-assembly according to claim 23, wherein said
2 shield is attached to a front of the scraper blade such that the liquid is sprayed ~~at a point~~
3 ~~on a conveyor belt ahead of the scraper blade~~ toward the conveyor belt.

1 25. (Currently amended) The blade support sub-assembly according to claim 23, wherein said
2 shield is attached to a rear of the scraper blade such that the liquid is sprayed ~~at a point on~~
3 ~~a conveyor belt behind the scraper blade~~ toward the conveyor belt.

1 26. (Currently amended) ~~The blade support sub-assembly according to claim 21;~~ A blade
2 support sub-assembly adapted to be used with a scraper blade for scraping and cleaning a
3 conveyor belt and with a mounting sub-assembly, comprising:

4 a pair of notched receiving members, each notched receiving member having a
5 notch formed from a front vertical stabilizer and a rear vertical stabilizer, said notch for
6 receiving a scraper blade, and said pair of notched receiving members adapted for use
7 with a mounting sub-assembly;

8 a face plate extending between said pair of notched receiving members and about
9 parallel to the scraper blade such that at least a portion of the scraper blade rests flush
10 against said face plate when the scraper blade is situated in said pair of notched receiving
11 members; and

12 a means for spraying a liquid on the conveyor belt, wherein the liquid is selected
13 from the group consisting of water, a cleaning agent, a solvent, anti-freeze, and a dust
14 inhibitor.

27-30 (Cancelled)

1 31. (New) The blade support sub-assembly according to claim 26, wherein said mounting
2 sub-assembly comprises a first hollow member being an elongated tube having an internal
3 diameter, a second member being an elongated component having an external diameter

1 less than said internal diameter of said first hollow member wherein said second member
2 is inserted within said first hollow member thereby creating a space between said first
3 hollow member and said second member, a means for restricting rotation of said second
4 member within said first hollow member contained within said space, a means for
5 securing said second member to said pair of notched receiving members such that as said
6 second member rotates within said first hollow member said notched receiving members
7 rotate, and a means for securing said first hollow member at a position below the
8 conveyor belt such that the scraper blade is in contact with the conveyor belt.

1 32. (New) The blade support sub-assembly according to claim 31, wherein said second
2 member has a length longer than said first hollow member.

1 33. (New) The blade support sub-assembly according to claim 31, wherein said first hollow
2 member and said second member have a generally square cross-sectional shape.

1 34. (New) The blade support sub-assembly according to claim 33, wherein said second
2 member is offset approximately 45 degrees from said first hollow member when said
3 second member is inserted within said first hollow member.

1 35. (New) The blade support sub-assembly according to claim 34, wherein said second
2 member has rounded corners.

1 36. (New) The blade support sub-assembly according to claim 31, wherein said means for
2 restricting rotation of said second member within said first hollow member contained
3 within said space is one or more torsion elements in said space.

1 37. (New) The blade support sub-assembly according to claim 36, wherein said one or more
2 torsion elements are elongated bars of rubber having a length generally equal to a length

1 of said first hollow member.

1 38. (New) The blade support sub-assembly according to claim 37, wherein said torsion
2 elements have a generally circular cross-sectional shape.

1 39. (New) The blade support sub-assembly according to claim 32, wherein said means for
2 securing said second member to said pair of notched receiving members comprises a first
3 end of said second member protruding through a hole in one of said pair of notched
4 receiving members and a second end of said second member protruding through a hole in
5 a second of said pair of notched receiving members.

1 40. (New) The blade support sub-assembly according to claim 1, wherein said face plate is
2 positioned between said notched receiving members such that said face plate is at a height
3 aligned with a height of said rear vertical stabilizer of each said notched receiving
4 member.

1 41. The blade support sub-assembly according to claim 1, further comprising:
2 a shield attached to the scraper blade, wherein said shield extends from the scraper
3 blade and over the blade support sub-assembly.

1 42. (New) The blade support sub-assembly according to claim 1, wherein said mounting sub-
2 assembly comprises a first hollow member being an elongated tube having an internal
3 diameter, a second member being an elongated component having an external diameter
4 less than said internal diameter of said first hollow member wherein said second member
5 is inserted within said first hollow member thereby creating a space between said first
6 hollow member and said second member, a means for restricting rotation of said second
7 member within said first hollow member contained within said space, a means for
8 securing said second member to said pair of notched receiving members such that as said

1 second member rotates within said first hollow member said notched receiving members
2 rotate, and a means for securing said first hollow member at a position below the
3 conveyor belt such that the scraper blade is in contact with the conveyor belt.

1 43. (New) The blade support sub-assembly according to claim 42, wherein said second
2 member has a length longer than said first hollow member.

1 44. (New) The blade support sub-assembly according to claim 42, wherein said first hollow
2 member and said second member have a generally square cross-sectional shape.

1 45. (New) The blade support sub-assembly according to claim 44, wherein said second
2 member is offset approximately 45 degrees from said first hollow member when said
3 second member is inserted within said first hollow member.

1 46. (New) The blade support sub-assembly according to claim 45, wherein said second
2 member has rounded corners.

1 47. (New) The blade support sub-assembly according to claim 42, wherein said means for
2 restricting rotation of said second member within said first hollow member contained
3 within said space is one or more torsion elements in said space.

1 48. (New) The blade support sub-assembly according to claim 47, wherein said one or more
2 torsion elements are elongated bars of rubber having a length generally equal to a length
3 of said first hollow member.

1 49. (New) The blade support sub-assembly according to claim 48, wherein said torsion
2 elements have a generally circular cross-sectional shape.

- 1 50. (New) The blade support sub-assembly according to claim 43, wherein said means for
2 securing said second member to said pair of notched receiving members comprises a first
3 end of said second member protruding through a hole in one of said pair of notched
4 receiving members and a second end of said second member protruding through a hole in
5 a second of said pair of notched receiving members.